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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,415	11/28/2001	Steven A. Van Slyke	83401RLO	4107

7590 02/13/2002

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EXAMINER

BUEKER, RICHARD R

ART UNIT	PAPER NUMBER
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1763

DATE MAILED: 02/13/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/996,415

Applicant(s)

VAN SLYKE ET AL

Examiner

Richard Bueker

Art Unit

1763

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) ____
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-6, 15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spahn (6,237,529) in view of Green (5,584,935) and Yamazaki (US 2001/0006827). Spahn discloses a thermal physical vapor deposition source for organic materials. Spahn's apparatus includes a container for the material to be vaporized and a vaporization heater defining a vapor slit as presently claimed. Spahn teaches (col. 1, lines 42-47) that the container can be an electrically insulative material surrounded by a resistive heater. Spahn also teaches (col. 5, lines 33-40) that the container can be additionally heated to supplement the heat from the vaporization heater. Spahn does not specifically teach that the container can be additionally heated by a bias heater having side walls and a bottom wall, wherein the bias heater side walls are shorter than the container walls. Green (see Fig. 1) teaches that a vaporization container can be successfully heated by placing the container in a bias heater having side walls and a bottom wall, wherein the bias heater side walls are shorter than the container walls. It would have been prima facie obvious to use a container heater of the type taught by Green to provide the additional heating suggested by Spahn, because Green teaches that a vaporization container can successfully be heated by his heater. Spahn (col. 7, lines 2-5) discloses that his vaporizer is for use in a web coating process, and judicial notice is taken of the fact that one skilled in the vacuum coating art would

recognize a web coating process as a process of coating a moving web substrate, requiring relative motion between the vapor deposition source and the substrate. Green (col. 4, line 58 to col. 5, line 11) also makes clear that his evaporation source is for coating large moving sheets of glass. Furthermore, Yamazaki teaches that it is desirable to deposit OLED coatings on large substrates by using means for providing relative motion between an evaporation source and the substrate. It would have been obvious to one skilled in the art to utilize the vacuum evaporation source of Spahn to coat large substrates by using means for providing relative motion between Spahn's evaporation source and the large substrate to be coated, because Yamazaki teaches that it is desirable to deposit OLED coatings on large substrates by using means for providing relative motion between an evaporation source and the substrate.

Claims 2, 8-14, 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spahn in view of Green and Yamazaki (US 2001/0006827) for the reasons stated above, taken in further view of Tanabe (US 2001/0008121) and Takagi (4,197,814). Tanabe and Takagi both teach that it is desirable to control a vacuum evaporation process by monitoring the temperature of a vacuum evaporation source and using feedback control to control the heater power supply. It would have been obvious to use a heater control means of the type taught by Tanabe and Takagi to control the heaters of Spahn because Tanabe and Takagi teach that such heater control provides a higher quality coating. Also, Takagi (col. 6, lines 54-56) teaches the general functional equivalence of a thermocouple and an optical pyrometer for measuring the temperature of a vacuum evaporator.

Claims 7 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Spahn in view of Green and Yamazaki (US 2001/0006827), and in further view of Tanabe (US 2001/0008121) and Takagi (4,197,814) for the reasons stated above and in further view of Steube (4233, 937) who discloses the use of a lead screw (see Figs. 8-10, for example) to provide relative motion between a vacuum evaporation source and a substrate to be coated. It would have been obvious to use a screw drive mechanism to cause the relative motion taught by Yamazaki, because Steube teaches that a screw drive can successfully be used to move a vacuum evaporation source. Steube (see abstract) also teaches the step of keeping his vaporizer in "park" until it is producing a steady vapor flux, and it would have been obvious to one skilled in the art to use a flux monitor and control means such as that taught by Tanabe and Takagi to monitor the flux from Yamazaki's vapor source prior to moving the vapor source.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Bueker whose telephone number is (703) 308-1895. The examiner can normally be reached on 9 AM - 5:30 PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Mills can be reached on (703) 308-1633. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

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Richard A. Bueker

Richard Bueker
Primary Examiner
Art Unit 1763

February 10, 2002